## Abstract of the Disclosure

5

10

15

The dispersion monitoring device of the present invention detects a change in dispersion caused in a system by performing the decision process of a received signal using a data flip-flop in which required decision phase and decision threshold are set, averaging the output signal of the data flip-flop using an integration circuit and determining a received waveform, based on a change in a level of an output signal from the integration circuit. In another preferred embodiment, a signal is inputted to a chromatic dispersion change sign monitor. If a chirping parameter is correctly set, residual chromatic dispersion shifts in the negative direction when the peak value of a received signal is large, and it shifts in the positive direction when the peak value of a received signal is small. Using this fact, optimum dispersion compensation is conducted.